

Listing of Claims

The following listing of claim replaces all previous listings or versions thereof:

1. (Original claim) A composition comprising:
 - (a) an isolated polypeptide comprising at least one LDL or VLDL nucleic acid binding domain; and
 - (b) a nucleic acid comprising an LDL or VLDL binding sequence,
wherein said nucleic acid is bound to said polypeptide.
2. (Original claim) The composition of claim 1, wherein said polypeptide comprises an LDL nucleic acid binding domain.
3. (Original claim) The composition of claim 1, wherein said polypeptide comprises a VLDL nucleic acid binding domain.
4. (Original claim) The composition of claim 1, wherein said nucleic acid comprises an expression region operably linked to a promoter active in eukaryotic cells.
5. (Original claim) The composition of claim 4, wherein said expression region encodes a polypeptide.
6. (Original claim) The composition of claim 4, wherein said expression region comprises an antisense construct.
7. (Presently amended) The composition of claim 5, wherein said polypeptide is selected from the group consisting of α -globin, β -globin, γ -globin, granulocyte macrophage-colony stimulating factor (GM-CSF), tumor necrosis factor (TNF), IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, β -interferon, γ -

interferon, cytosine deaminase, adenosine deaminase, β -glucuronidase, hypoxanthine guanine phosphoribosyl transferase, galactose-1-phosphate uridylyltransferase, glucocerbrosidase, glucose-6-phosphatase, thymidine kinase, lysosomal glucosidase, growth hormone, nerve growth factor, insulin, adrenocorticotrophic hormone, parathormone, follicle-stimulating hormone, luteinizing hormone, epidermal growth factor, thyroid stimulating hormone- α , CFTR, EGFR, VEGFR, IL-2 receptor, estrogen receptor, Bax, Bak, Bcl-X_s, Bik, Bid, Bad, Harakiri, Ad E1B, an ICE-CED3 protease neomycin resistance, luciferase, adenine phosphoribosyl transferase (APRT), retinoblastoma, insulin, mast cell growth factor, p53, p16, p21, MMAC1, p73, zac1 and BRCA1.

8. (Original claim) The composition of claim 6, wherein said antisense construct is complementary to a segment of an oncogene.
9. (Original claim) The composition of claim 8, wherein said oncogene is selected from the group consisting of *ras*, *myc*, *neu*, *raf*, *erb*, *src*, *fms*, *jun*, *trk*, *ret*, *gsp*, *hst*, *bcl* and *abl*.
10. (Original claim) The composition of claim 4, wherein said promoter is selected from the group consisting of CMV IE, LTR, SV40 IE, HSV *tk*, β -actin, human globin α , human globin β and human globin γ promoter.
11. (Original claim) The composition of claim 1, wherein said nucleic acid binding domain is an apoB100 nucleic acid binding domain.
12. (Original claim) The composition of claim 1, wherein said composition further comprises one or more lipoproteins selected from the group consisting of apoA1, apoA-II, apoA-IV, acat, apoE, apoC-II, apoC-III and apo-D.
13. (Original claim) The composition of claim 11, wherein said apoB100 is selected from the group consisting of human, rat and baboon apoB100.

14. (Original claim) The composition of claim 1, wherein said polypeptide comprises at least two nucleic acid binding domains.
15. (Original claim) The composition of claim 14, wherein said nucleic acid binding domain contains a motif selected from the group consisting of a proline pipe helix DNA binding motif, a ISGF3 γ -like DNA binding motif, a SREBP-like DNA binding motif, a coiled-coil motif and a nucleotide (ATP)-binding motif.
16. (Original claim) The composition of claim 14, wherein said binding domain is selected from the group consisting of SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, , SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166 and SEQ ID NO:175.
17. (Original claim) The composition of claim 1, wherein said polypeptide further comprises at least one nuclear localization sequence.
18. (Original claim) The composition of claim 17, wherein said nuclear localization sequence is from apoB100.
19. (Original claim) The composition of claim 17, wherein said nuclear localization sequence is selected from the group consisting of SEQ ID NO:178, SEQ ID NO: 179, SEQ ID NO: 180, SEQ ID NO: 194, SEQ ID NO: 195, SEQ ID NO: 196, SEQ ID NO: 197, SEQ ID NO: 198, SEQ ID NO: 199, SEQ ID NO: 200, SEQ ID NO: 201, SEQ ID NO: 202, SEQ

ID NO: 203, SEQ ID NO: 204, SEQ ID NO: 205, SEQ ID NO: 206, SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210.

20-63. (Canceled)

64. (Original claim) A pharmaceutical composition comprising:

- (a) an isolated polypeptide comprising at least one LDL or VLDL nucleic acid binding domain; and
- (b) a nucleic acid comprising an LDL or VLDL binding sequence, wherein said nucleic acid is bound to said polypeptide;

said pharmaceutical composition being dispersed in a suitable diluent.

65. (Original claim) A method of transforming a cell comprising:

- a) providing a cell;
- b) contacting said cell with a composition comprising (i) an isolated polypeptide comprising at least one LDL or VLDL nucleic acid binding domain and (ii) an expression cassette comprising a nucleic acid sequence encoding an expression region and a promoter active in eukaryotic cells, wherein said expression region is operably linked to said promoter, and wherein said nucleic acid sequence is bound to said LDL or VLDL;

wherein expression of said expression region is indicative of said transformation.

66. (Original claim) A method of transfecting a cell comprising the steps of:

- a) providing a cell;
- b) contacting said cell with a composition comprising (i) an isolated polypeptide comprising at least one LDL or VLDL nucleic acid binding domain and (ii) an